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ABSTRACT

A research and theory-based model proposed for the professional preparation and induction of vocational teachers suggests a collaborative problem-solving effort that would use a clinical approach to preservice preparation. Beginning teachers report problems not in subject material, but in instructional planning, delivery, and classroom management techniques. Although the most effective component of the teacher education process is field experience, more specific "pedagogical laboratories" should emphasize the practice and critique of teaching skills. Among the problems inhibiting smooth induction of beginning teachers are institutional responsibility, professional status of teachers, and lack of tradition in teacher education. There has been a widespread movement in general education to develop and implement a variety of induction programs. Assessment and support of beginning teachers are functions of induction programs. An effective mentoring program is beneficial in teacher induction. Teacher centers should serve the needs of vocational teachers. A collaborative effort should include professional centers, preservice instructional programs, and induction assistance for other school systems. The professional development center should be a direct relationship involving ongoing school and university contact to encourage cooperation. (85 references) (NLA)

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Virginia Polytechnic Institute and State University

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PROFESSIONAL DEVELOPMENT OF TEACHERS OF VOCATIONAL EDUCATION

William G. Camp
Division of Vocational and Technical Education
Virginia Polytechnic Institute and State University

Educational reform has periodically risen to the forefront of national attention for many years (Cruickshank & Armaline, 1986; Conant, 1963; Meyer, 1957), yet there have been only a few times in our history when the momentum and opportunity for substantive change in the profession of teaching and in education, as a whole, have appeared to be as great as they are today. Typical is the call of Terrell H. Bell (1988), former Secretary of Education, for a "Marshall Plan" for educational reform. According to Imig (1988), as educators we have no choice but to reform the profession and to improve its performance immediately, or the nation's political leadership will do it for us. Many in the profession wonder if it might not be already too late to avoid Imig's dire prediction.

Clearly, the key player in the educational process itself, and thus in any serious effort at educational reform, is the teacher (Reyes, Alter, & Smith, 1986). Yet, the models and processes that are used in the preparation of teachers are often a result of historical accident and political decision rather than a product of educational theory or research (Cruickshank & Armaline, 1986). The problem to be addressed in this paper is how to improve the preparation and induction of vocational teachers as a means to contribute to the professionalization of public vocational education and, ultimately, to provide the most effective vocational education possible for our students and for society in general.

Beginning even before the publication of A nation at risk: The imperative for educational reform, by the National Commission on Excellence in Education (1983), educators in America have been bombarded with a steady stream of reports questioning the quality of the educational system. There has been no shortage of studies suggesting substantive and meaningful changes; the Holmes Group (1985) and the Carnegie Commission (1986) reports may well be the two most comprehensive educational reform documents offered in the last half century, even considering the suggestions of Conant (1963). Yet meaningful reform of the teaching profession and the educational system is not a simple matter (Cuban, 1987; Sarason, 1971). Of more immediate concern to vocational educators is the fact that in the majority of the reports, vocational education has been either ignored or, at best, dealt with only casually (The National Commission on Secondary Vocational Education, 1984). One notable exception, in addition to the study specifically commissioned to examine secondary vocational education, is the William T. Grant Foundation (1988) report, The Forgotten Half: Non-College Youth in America, discusses a redirected vocational education as having an important part to play in the reform of public education.

It is sometimes frustrating to hear and read all the criticism of the educational enterprise that many of us have made our profession. Yet,

taking the reports as a challenge rather than a condemnation, and moving forward with meaningful but measured reform must be the goal of the profession (Darling-Hammond, 1984; Zumwalt, 1982; Berman & McLaughlin, 1978; Haberman, 1985).

An obvious first step in the direction of reform must be the improvement of the process by which novice teachers are prepared for and inducted into the profession (Feiman-Nemser, 1983). That, along with a more meaningful mechanism for fostering continued development of working teachers will mean a better-prepared professional teaching force (Wildman & Niles, 1987,a), which is, after all, the prime requisite for success in improving and professionalizing public school teaching (Reyes, Alter, & Smith, 1986). Making the teacher a better-prepared and more professional worker is a realistic and reachable goal. Certainly vocational teachers are no exception. Research in the areas of teaching effectiveness and teacher induction done by such researchers as Elbaz (1983); Feiman-Nemser & Floden, (1986); Berliner (1985,a); Trumbull (1986); Fenstermacher (1979); Lampert (1985); Schon (1983); Little (1982); Cruickshank & Armaline, 1986; and Wildman & Niles (1987,b) have implications for the direction that such efforts should take.

A fundamental departure from the historical vocational teacher preparation model will be necessary if vocational education is to become a true profession, as the Homes group (1985) and others envision. This paper proposes an alternative to that relatively restrictive approach to vocational teacher training. The programming of vocational instructors by mastery of a sequence of only marginally related subskills or tasks is quite simply an inadequate model for teacher education and preparation if the goal of a more professional teacher corps is to be realized (Cruickshank & Armaline, 1986; Berliner, 1985,a; McNeil, 1988).

Purpose

The purpose of this paper is to propose a research and theory-based model for the professional preparation and induction of vocational teachers. In order to address that purpose, a synthesis of the relevant professional and research literature was developed. The model suggests a collaborative effort among teacher education institutions, state departments of education, local school systems, and more importantly local school teachers in solving the problems involved in the professional preparation of teachers for vocational education.

The proposed professional development model would serve two fundamental purposes. First it would utilize a more clinical approach to preservice preparation of new vocational instructors. Second, it would provide a mechanism to help solve the induction and professional development problems of existing vocational education teachers, particularly those in their beginning years. In more general terms, it would facilitate the testing and implementation of educational theory, research, and practice which recognizes the inherent complexity of the teaching endeavor; promote teaching as a respected and learned profession; incorporate the existing and emerging knowledge base on human cognition and

developmental psychology; and create and nurture support systems of collaboration and reflection to facilitate the professionalization of vocational education teaching. It would allow novices, researchers, and practitioners to work together for the betterment of the profession and to advance the frontiers of knowledge in vocational education instruction delivery.

Preservice Teacher Education

Problems

Shanker (1987) addressed the pressing problem over the next few years of finding enough new teachers to fill our nation's classrooms, even disregarding the question of qualifications or quality. Imig (1988) reported on one solution to the problem which also addresses the more general demands for reform in teacher education, being implemented in Texas. In that state, the legislature has mandated that beginning teachers cannot have degrees in education and that a maximum of 18 semester hours of coursework in pedagogy and learning theory will be allowed on degrees that are granted. Teachers can thus be hired directly from the entire pool of college graduates. The new teachers are then trained during an "induction year." A somewhat similar program is currently in effect in Virginia (J. H. Hillison, personal communication, March 31, 1988). Discussing such programs, Barr (1987) referred to those who enter teaching without teacher education, as "fast track" teachers, and questioned the wisdom of "stopgap" measures designed to avoid teacher shortages by abandonment of teacher education and professional entry standards.

Haberman (1985) indicated that such teachers must rely on "common sense" pedagogy since they have no formal training in how to teach or learning theory. He then posited that much common sense is, in fact, nonsense. Finally, Haberman concluded that the common sense pedagogies of well-intentioned and well-educated, but untrained teachers can be counter-productive to the educational system in general and damaging to the students in the classrooms in particular. Sedlak (1987) criticized this approach as "pseudo-credentialism" and characterized it as irresponsible. Sedlak also wrote that wholesale use of "spurious" credentialing of untrained teachers and "emergency" certification can be expected to produce large numbers of incompetent teachers. Writing on a related matter, Shanker (1987) charged that "promises of higher standards have been made. And they are being routinely betrayed...warm bodies are today being given license (to teach)."

Bouchie (1987) and Fuller (1987) both described programs for the training and induction of new non-degree vocational teachers. This program, characteristic of much of vocational education in the United States since the early part of this century, in many ways resembles the "fast track" approach to teacher preparation that has been implemented in a number of states (Imig, 1986; J. H. Hillison, personal communication, March 31, 1988).

Shulman (1987, November) argued that teaching is one of the most difficult professions to master. Not only must the teacher know a discipline just as well as any other practitioner in the field. He or she must understand it well enough to explain it to someone else. Even more demanding, he or she must understand the principles of pedagogy well enough to plan and deliver an effective lesson as a part of the process.

An argument that has been proffered for the elimination of teacher education requirements for novice teachers prior to their entering the classroom, is that the "academic quality" of teachers will be improved by having candidates earn liberal arts degrees instead of teaching degrees. Guyton and Farokhi (1987) in a study of teacher education graduates, reported that they found no relationship between teachers' basic skills knowledge and teaching performance. They also found no relationship between either overall grade point average or discipline-specific grade point average in college and subsequent teaching performance. The only significant and positive relationship they found was between grades in education courses and teaching performance.

Barr (1987) found that teachers who have problems, seldom have those problems in subject matter expertise. Rather the most frequently reported teacher problems are in instructional planning and delivery and in classroom management techniques (Barr, 1987; Odell, 1986; Varah, Theune, & Parker, 1986; Veenam, 1984).

Programs

There is a massive body of literature on teaching effectiveness dating back many years (Zahorik, 1986; Hireau, 1986; Ornstein, 1985) and yet responsible and prominent educational researchers and practitioners disagree on what makes for either effective or good teaching (Reyes, Alter, & Smith, 1986; Ornstein, 1985). Barr (1987) found disagreement over whether it is possible to measure or predict effective teaching. And Crocker (1986) reported that many people even question whether the teacher actually makes a difference in student learning in the first place.

One outcome of that research has been the emergence of a set of "effective teaching behaviors" that have frequently been applied to the assessment function of induction programs, as discussed earlier. McNeil (1988) charged that rigid adherence to "centrally-controlled" lists of such "proficiencies", or skills, results in a "dumbing down" of the teacher education curriculum. Designers of such systems mistake technique for teaching and classroom management skills for pedagogy (McNeil, 1988). Reyes, Alter, and Smith (1986) also contended that, although teaching is strengthened by a strong research base, rigid adherence to a fixed set of procedures based on teacher effectiveness research, is not warranted. Ornstein (1985) cautioned that claims about the effects of discrete teacher behaviors on student outcomes, must be made "in context."

There is almost universal agreement among practitioners that the most effective component of the teacher education process is field experiences, particularly student teaching (Goodman, 1985; Cruickshank & Armaline, 1986). Yet, the research generally shows that there is little benefit

derived from the student teaching experience, as it is generally practiced today, and that it may often be counter-productive (Berliner, 1985,a). Goodman (1985) contended that "just placing students in classrooms does not provide quality educational experiences." Even more extreme in his criticism, Berliner (1985,a) concluded that "student teaching, in its present form, retards the development of analytic skills...and militates against the development of the profession."

Cruickshank and Armaline (1986) and Berliner (1985,a) advocated a more clinical approach to the preservice development of teachers, more along the lines that John Dewey described earlier in the century. They advocated the adoption of a teaching laboratory approach to the training of teachers. The implication of that argument is that only through the use of a detached, guided experience, without the pressures of multiple classes on an ongoing basis such as student teachers face today, can the preservice teacher develop a reflective, inquiring approach to pedagogy. This approach would transform the field experience from the current apprenticeship model producing "craftspersons" to a clinical approach producing reflective, inquiring "professionals" (Cruickshank & Armaline, 1986). Berliner (1985,b) specifically advocated the development of "pedagogical laboratories" where specific teaching skills could be practiced, analyzed, and critiqued.

Beginning Teacher Induction

Induction Problems

Historically, there have been a number of inherent, systematic problems inhibiting the smooth induction of beginning teachers, and the implementation of a comprehensive induction program in America's schools. Yeager (cited in Roper, Hitz, & Brim, 1985), pointed out three reasons for this problem. First, there has been a general lack of institutional responsibility for teacher education beyond the preservice level. Second, the ambiguous status of teachers, who may be regarded as professionals, semi-professionals, and even middle-level public servants in various quarters, has led to a lack of public commitment to invest adequate money in teachers' professional development. Finally, Yeager posited that there is a lack of tradition in teacher education such as there is in the other professions. After all, it has been only a few decades since the public was convinced that teachers needed college degrees. Roper, Hitz, and Brim (1985) pointed out that there has been no general agreement over who controls public education and in particular teacher education in America. The colleges of education, the state departments of education, the local school systems, state certification agencies, and teacher organizations all vie for control. They concluded that it is small wonder, with so much historical and political uncertainty, there is no widespread agreement on teacher preservice preparation or induction models. And yet, the beginning teacher's needs for assistance during the induction stage of his or her career remains critical (Huffman & Leak, 1986; Hoffman, Edwards, O'Neal, Barnes, & Paulisen, 1986).

Veenam (1984), in a review of the international literature on the problems of beginning teachers, described what has been variously called "reality shock," "transition shock," praxisschock," and "reinwascheffekt," in English and German writings. As he described it, reality shock is the mental trauma experienced by beginning teachers during the transition from full-time student to full-time teacher. It is characterized by five indicators: perception of problems, changes in behavior, changes in attitude, changes in personality, and most drastically, leaving the teaching profession. Referring to this same process, Hoffman et. al. (1986) characterized teacher induction as it has been practiced traditionally, as "the Robinson Crusoe" approach.

For decades the beginning teacher's need for help in making the transition from the status of student has been recognized (Conant, 1963). We have begun to recognize that the transition period, more recently referred to as the "induction period" from student to teacher is a critical time in the professional development of the novice teacher (Roper, Hitz, & Brim, 1986; Waters, 1985; Lortie, 1975; Huffman & Leak, 1986; Johnson & Kay, 1987).

There are a number of outcomes in the professional development of the novice teacher that are influenced by events during the induction period. Lortie (1975) found that the beginning teacher is expected to step directly into the role of professional teacher, with little, if any assistance, and assume the same responsibilities as the veteran teacher. The pressure of that experience is truly traumatic; but, as Ryan (1982) indicated "there is more to induction than the sleepless night and bruised ego of the beginning teacher." The beginning teacher is faced with a degree of psychological and professional isolation that can be mentally numbing (Lortie, 1975; Huffman & Leak, 1986).

Fuller (1969) (cited in Waters; 1985) described three levels in the development of professional teachers. At the beginning, the novice teacher is concerned primarily with survival and is in the "self" stage. As he or she experiences some successes and begins to master the profession, survival is somewhat assured and the teacher becomes concerned with how to improve his or her teaching. That is referred to as the "task" stage. After becoming comfortable with survival and teaching strategies, the teacher finally begins to consider the results of the teaching process on the student. This final developmental level is called the "impact" stage. Glickman (1981) (cited in Waters, 1985) elaborated on the three stages by suggesting specific beginning teacher needs associated with each stage. While in the self stage, the novice needs direction and suggestions. In the task stage, he or she responds best to collaborative assistance--Berliner's (1985,a; 1985,b) clinical model fits very well at this developmental level. At the impact stage, the teacher really needs very little help, and is best served by serving as a co-equal member in a peer evaluation and assistance program.

Huffman and Leak (1986) argued that until beginning teachers can resolve their concerns about those problems of the job that affect them personally (self stage), they are unlikely to move on to solving the

problems that affect their students (impact stage). From this, it is clear that transition assistance and support to the beginning teacher affects not only on the teacher, but his or her students as well.

Nevertheless, the first, and most immediate casualty of a rocky transition into teaching is the individual novice teacher. Beginning teachers often hesitate to ask for help, for fear of appearing incompetent (Huffman & Leak, 1986). As teacher education students, they are imbued with an idealism based on educational theory that is removed from the day-to-day pressures and drudgery of the classroom (Veenam, 1984). This produces what Veenam observed as a liberalization of the preservice teacher education student's philosophy and attitudes. Then as novice teachers, they try to be democratic and liberal in their dealings with students. At that point reality shock sets in and they are forced to shift both their behaviors and attitudes into a more authoritative, conservative direction, simply to survive the exigencies of the moment. From facilitator and encourager, the beginning teacher quickly adapts his or her role to custodian and authority figure (Veenam, 1984).

Ligana (1970) described a "Curve of Disenchantment" that beginning teachers experience. They enter teaching excited and idealistic. Very soon, they begin to experience frustrations and, as a result, develop more negative attitudes toward their students and teaching in general. After a while, and with more experience, they rebound to a more realistic but still relatively negative attitude--but one that can be maintained for the long run. For those beginning teachers who successfully survive that transition, the result is that they rapidly abandon the norms and expectations they developed during preservice education and adapt to the norms and expectations of the local school setting (Griffin, 1985).

An interesting implication of this phenomenon is that the reform of actual teaching practice cannot be modified drastically with impetus primarily from the level of teacher education (Griffin, 1985; Holmes, 1986; Cuban, 1987; Thies-Sprinthall & Sprinthall, 1987). For those who fail to negotiate the induction period, a bitter departure from the profession may be the result. Numerous studies have indicated that problems in adjusting to the role of teacher frequently result in beginning teachers leaving the profession, and may even be the primary cause of the low retention rate among beginning teachers (Moore & Camp, 1979; Varah, Theune, & Parker, 1986; Roper, Hitz, & Brim, 1985; Varah, Theune, & Parker, 1986).

But, based on the Fuller (1969) and Huffman and Leak (1986) studies cited above, it is clear that the second, and more important casualty of a rocky transition is the client of the beginning teacher--i.e., his or her students. In the furor over educational reform, we have often forgotten that our final product and our sole reason for existence as a profession is the youngster in the classroom. The beginning teacher who is frustrated and confused cannot satisfactorily teach his or her students, nor provide an acceptable role model. The real loser is the child (Roper, Hitz, & Brim, 1985).

Induction Programs

During this decade, there has been a widespread movement in general education in this country to develop and implement a variety of induction programs for beginning teachers (Waters, 1985; Thies-Sprinthall & Sprinthall, 1987; Johnson & Kay, 1987; Underhill & Brown, 1988; Galvez-Hjornevik, 1986; Huling-Austin, 1986; Ashburn, 1986-87). Yet, there is little agreement in the profession about what constitutes a good induction program (Rauth & Bowers, 1986). Moreover, there is little empirical evidence to support any particular type of induction program (Hawk, 1986-87). Nevertheless, there is a growing consensus that induction programs are needed to ease the transition from preservice student to practicing teacher (Underhill & Brown, 1988; Ashburn, 1986-87; Huling-Austin, 1986; Odell, 1986). And if there is one area on which there is general agreement, it is that induction assistance must be a collaborative effort centered in the local school and not at the university level (Thies-Sprinthall, 1986). The importance of collaboration in the literature is so great that the subject will be dealt with in greater detail in a later section of this paper.

In a scathing commentary on the induction processes currently being reported in the literature, Rauth (Rauth & Bowers, 1986), insisted that a primary goal of any induction program should be "to serve a new vision of teaching that develops the teacher as artisan, not technician." Thies-Sprinthall and Sprinthall's (1987) conclusion that inservice activities produce little impact on teaching practices and Griffin's (1985) findings regarding the rapidity with which new teachers drop their preservice idealism in favor of local "realities" both lend credibility to Rauth's challenge. If the Holmes (1986) visions for "Tomorrow's Teachers" is to be realized, then induction programs must be innovative and must depart from current practice. Moreover, they must be centered in the school and not in the institution of higher education. More importantly, beginning teacher programs cannot be the centerpiece of the entire educational reform movement, but rather only a component of it (Huling-Austin, 1986).

In a survey of all member institutions of the American Association of Colleges of Teacher Education, Johnson and Kay (1987) found that almost half (49%) of the respondents reported that their institutions had teacher induction programs either in place, in the pilot test stage, or in the planning stage. Many of the programs were in response to state mandates. Unfortunately, state mandated programs, all to often take the form of primarily (or exclusively) assessment activities, the underlying purpose of which is screening novice teachers (Hoffman, Edwards, O'Neal, Barnes, & Paulissen, 1986; Fox & Singletary, 1986).

The same researchers (Johnson & Kay, 1987) identified five goals of induction programs: (a) orientation, (b) psychological support, (c) acquisition and refinement of teaching skills, (d) teacher retention, and (e) assessment and evaluation. Huling-Austin (1986) reported four goals for induction programs: (a) improve teaching performance of beginning teachers, (b) increase retention of promising beginning teachers, (c) pro-

mote professional and personal well-being of beginning teachers, and (d) satisfy mandated requirements of state certification programs.

In contrast to the pressures of assessment without remediation, Odell (1986) found that beginning teachers need 7 categories of support: system information, resources and materials, instructional strategies, emotional support, help in classroom management and discipline, help in managing the physical environment of the classroom, and demonstration teaching to observe for ideas. Veenam (1984) identified classroom discipline and motivating students to be the most frequently cited needs of beginning teachers. Interestingly, the Odell (1986) study found that of the seven categories of needs reported above, less help was required in classroom management than in the areas of instructional strategies and finding resources and materials.

According to Underhill & Brown (1988), provision of demonstration lessons to the beginning teacher is an important induction assistance activity. Johnson and Kay (1987) delineated five major activities that teacher education institutions reported for their induction programs: (a) seminars and informal gatherings, (b) providing access to alternative certification programs, (c) training peer teachers to help beginning teachers, (d) training mentors, and (e) operating computer networks or toll-free telephone "help" lines.

Bouchie (1987) described an individualized, competency-based program for the training and certification of non-degree vocational teachers. The program, in essence an extended induction program, provided a combination of credit and non-credit courses along with on-the-job supervision of the developing teachers by university and local administrators. Fuller (1987) described a similar program in Vermont vocational centers which serves both degreed and non-degreed beginning teachers. The heart of the Vermont program appears to have been a mentor approach.

Virtually a flood of information has been produced in the professional literature concerning induction programs and activities (Johnson, 1986-87). In all of the articles and papers reviewed for this paper, two major induction activities appeared consistently: mentoring and assessing (Galvez-Hjornevik, 1986). Because of the current importance of those approaches in the literature, both will be dealt with in more detail in the next two sections of this paper.

Assessment Programs

Numerous authors have indicated that assessment or evaluation of beginning teachers is one function of induction programs (Johnson & Kay, 1987; Virginia Department of Education, undated; Huling-Austin, 1986).

Huffman and Leak (1986) described the Beginning Teacher Program in a large southeastern U.S. city. The major component of the program was a support team consisting of the building principal, the assistant principal for instruction, a college faculty member, and a mentor selected by the principal. The support team provided both assessment and mentoring functions.

Hoffman et. al. (1986) studied the state mandated induction systems in two states which were not identified. In both cases, the purposes of the programs included beginning teacher support and assessment. They found that in such situations, the state role became one of assessment for screening purposes, while the local schools assumed the supporting and assisting role vis-a-vis the state assessment process. They also found that compliance with requirements for observation and assessment were strictly supervised by the responsible state agency, whereas the equal and simultaneous requirement for support and assistance to the beginning teacher was less closely managed. Thus, it would appear that in both cases, the induction program became, in fact, a screening assessment program.

The Virginia Beginning Teacher Assistance Program, when implemented in 1985 was envisioned as a dual purpose program: teaching competency assessment and assistance (Virginia Department of education, undated). It requires that beginning teachers demonstrate a series of specific behaviors, or competencies, during a two year probationary period in order to qualify for full professional certification. In fact, the program has become almost purely an assessment activity with little concern for the psychological well-being of the novice teacher. Indeed, it is seen as a threat and a source of tension by those who are being evaluated (J. H. Hillison, personal communication, March 31, 1988). Fox and Singletary (1986) reached a similar conclusion when they reported that assessment programs increase the pressure and tension on beginning teachers at the very time when they need support the most.

McNeil (1988) attacked programs, such as these assessment procedures which force teachers to adhere to or demonstrate laundry lists of "behaviors or proficiencies," as demeaning. Creative teachers are forced to contrive means to bypass the assessment process. McNeil further argued that such programs ignore decades of research on child development and the "entire movement toward enhancing teacher knowledge."

Clearly, the underlying purpose of induction assessment programs is to screen incompetent or unpromising teachers out of the profession (Virginia Department of Education, undated; Hoffman et al., 1986; Huffman & Leak, 1986; Fox & Singletary, 1986). Given that, it becomes appropriate to ask whether such assessment programs are effective in screening for entry into the profession. Hoffman et al. (1986) found that they were ineffective in that role. On the other hand, Rauth (Rauth & Bowers, 1986) contended that preservice screening for admission to teacher education also has been ineffective, and thus induction assessment programs may offer the only viable solution to the problem of strengthening the teaching force.

Mentoring

The Mentor

The derivation of the term "mentor" is very instructive in arriving at an understanding of the full meaning of mentoring. Anderson and Shannon (1988) recalled that in ancient Greek literature, Homer recorded

the myths of the Trojan Wars. Odysseus, the great Greek warrior, on leaving his home to join the campaign against Troy, asked his trusted friend Mentor to assume responsibility for his household, and most importantly to nurture, teach, and protect his (Odysseus's) son Telemachus.

From this and from a review of the contemporary literature, they concluded that mentoring is an intentional process that requires conscious effort on the part of both the mentor and the protege. The purpose of the mentor is to foster growth in the protege. The mentor teaches, guides, and nurtures through an insightful process--i.e., the protege is guided to learn through insight as well as direct instruction. And, finally, the mentor is supportive and protective of the protege (Anderson & Shannon, 1988). Drawing from the same mythology, Galvez-Hjornevik (1986) added that the mentor-protege relationship implies a "deep and meaningful" association.

Huffman and Leak (1986) contended that the mentor should teach at the same grade level and in the same school as the novice, preferably with room assignments in proximity to each other. On the other hand they concluded that mentor competence and genuine concern are more important than either of those other considerations. Varah et. al. (1986) also found that the mentor should be a volunteer, three to five years older, teaching at the same grade level, and in the same school as the novice. Schein (1978) (cited in Galvez-Hjornevik, (1986) defined the mentor as one who assumes several of the following roles: "teacher, coach, trainer, positive role model, developer of talent, opener of doors, protector, sponsor, and successful leader."

Galvez-Hjornevik (1986) asked a group of teachers whether they believed that they had ever had a mentor. The teachers who responded "yes" generally listed college professors, supervisors, principals, and former teachers. Very few listed co-workers as mentors. Yet, in the same study, she concluded that the ideal mentor would be an older, same grade, same school teacher. Further, she concluded the mentor should be of the same sex as the protege and about 1/2 generation (8 to 15) years older than the protege. She concluded that more extreme age differences could lead to a parent-child type of relationship and that less of an age difference could produce a peer-peer relationship.

In assessment induction programs, such as those reported by Hoffman et. al. (1986) and Huffman and Leak (1986), the "support teacher" in the case of the former or the teacher member of the "support team" in the case of the latter, also has an evaluative role. But, Galvez-Hjornevik (1986) argued that a mentor should not be arbitrarily assigned and cannot have an evaluative role. If, as she contended evaluation and mentoring are mutually exclusive functions, then members of "support teams" in assessment programs could not be regarded in the same light as mentors, because they serve in an evaluative and threatening role whereas mentors are supportive and non-threatening.

In an article on teacher leadership, Howey (1988) described a three-tiered career ladder, much in the Holmes (1986) mold, with beginners on the first rung, professional teachers on the second rung, and "teacher

leaders" on the top rung. In the Howey scheme, inductees would come from among the beginner group, mentors would be from the middle group, and teacher leaders would be responsible for training, coordinating, and supervising the mentors.

The Mentoring Process

According to Gehrke (1988), mentoring involves numerous elements: choice, time, negotiation, growing independence, acknowledged uniqueness, reciprocity, whole life vision, and dialog. The mentor/protege relationship should be a matter of choice for both parties. Time should be provided, as a part of the work day, for the mentor and protege to interact. There must be room in the relationship for negotiation--the mentor is not a boss. The protege should be encouraged to grow progressively less dependent on the mentor. The mentor should recognize that the protege is not a clone of the mentor, but as a unique individual with possibilities and characteristics of his or her own. Learning and growth are not unidirectional; the mentoring process has reciprocal interchanges. The mentor should become aware and involved with the protege as a whole person, not just as a worker. Finally, the discussions between the two should be dialogues, not monologues on the part of the mentor.

Odell (1986) described an induction program in which clinical support teachers were trained to work with new teachers, in a mentoring role. One interesting conclusion of that study was that experienced teachers new to the system have much the same initial induction needs as genuinely new teachers.

Waters (1985), found that many young teachers are not yet capable of "removing themselves" from the immediate situation and reflectively examining their teaching performance. Cruickshank & Armaline (1986) held that reflective examination of one's own performance is an important part of the professional development of the new or prospective teacher. And Huling-Austin (1986) felt that helping the inductee with the process of self-evaluation through a reflective process is an important role of the mentor.

Fuller (1987) reported a Vermont project in which a vocational education mentoring program was studied. The mentors were appointed from among the existing staff at each vocational center by the center director. The program was designed to assist in the induction of newly hired, non-degreed trade and industry teachers. In a somewhat similar project, Bouchie (1987) reported on a teacher certification and induction program for non-degreed vocational teachers. In the latter study, mentoring played a less prominent role. In both studies, the unique needs of teachers without pedagogical training were noted.

There is general agreement that an effective mentoring program is beneficial in the induction of beginning teachers (Waters, 1985; Thies-Sprinthall, 1986; Wright & Wright, 1987; Odell, 1986; Huffman & Leak, 1986; Hoffman et al., 1986; Galvez-Hjornevik, 1986). But, of importance too, is the serendipitous finding that participating in the mentoring process is beneficial to the mentor. Both Galvez-Hjornevik

(1986) and Hoffman et. al. (1986) found that mentoring relationships improved the self image of the mentor. Thies-Sprinthall and Sprinthall (1987) described an experienced teacher who complained about the "horizontal" nature of the teaching career ladder, and its stagnating effect. Participating as a mentor gave that teacher a renewal experience and an opportunity to grow professionally.

Teacher Centers

Berliner (1985,b), as was noted earlier, advocated the development of pedagogical laboratories in which specific teaching skills could be reflectively practiced, critiqued, analyzed, and evaluated. Cruickshank (1985) described the use of a laboratory setting for "reflective teaching," in pre-student teaching programs. The Cruickshank reflective teaching approach was tested and found effective by Peters and Moore (1980) in an agricultural teacher education program at Purdue University.

Taking this one step further, Cruickshank and Armaline (1986) argued that a clinical laboratory approach to student teaching would be more appropriate for developing professionals, whereas the current model of field experience, as reported by Kirts (1981), in her national study of the state-of-the-art in student teacher programs in agricultural education, is more appropriate for training craftspersons. Cruickshank and Armaline advocated the use of field-based master teachers who should be considered adjunct education faculty. The field adjunct would be treated as a regular university professor, with all the associated rights and privileges, yet would operate within the local school system.

Hawkes (1988) described a program in Iowa that has operated along much those lines for up to 50 years. The University of Northern Iowa program uses "local resident centers" operated collaboratively between the university and the local school. Each local center has a "resident coordinator" who is an on-site representative of the university. Originally the purpose of the center and the coordinator was to provide a site and supervision for student teachers. In recent years, inservice functions and graduate programs have been added to the center coordinator's role.

Bouchie (1987) contended that local school personnel may distrust university professors, as "outsiders." Taking a similar position, Love (1984) pointed out that local school leaders and teachers often are reluctant to ask for help from outsiders, such as professors from university colleges of education. Hawkes (1988) found that the resident coordinator, because of long-term proximity, is accepted as a part of the local school team. Whitfield (1981) concluded that collaboration between the teacher education faculty and the local school system is essential, if effective local staff development is to occur. Responsive staff development programs must be located both physically and psychologically in the local school system. The university representative must be prepared to spend a great deal of time in the local schools and must be readily available to teachers and administrators (Whitfield, 1981).

In describing teacher centers, Alberty, Neujhar, and Weber (1981) pointed out the importance of easy availability to local teachers of assistance and inservice. They described a teacher center as a place with a physical continuity as well as a way of thinking without distinct bounds. Jacques and Haller (1981) emphasized the fact that a teacher center is not necessarily a room with a set of walls, but rather a process. They studied the feasibility of the use of teacher centers for serving the needs of vocational teachers in Connecticut. They found that the vast majority of such teachers would like to participate in professional development activities in teacher centers, provided the centers are responsive to local needs and conveniently located.

The Proposed Model

University/School Collaboration

From the foregoing discussions, it should be clear that teacher education institutions have a legitimate, indeed pivotal role to play in the professionalization of the faculty in America's public schools. Given that, the questions then become, what role and in what format should that role be played?

If one subscribes to the belief that learning to teach is a long-term developmental process that should be founded on guided reflection and inquiry, rather that the machine-like demonstration of laundry-lists of disassociated behaviors, one must conclude that changes will be necessary in the traditional approach to the preparation and professional development of teachers. Given the magnitude and persistence of the current calls for reform in education, that conclusion is unavoidable. Since this symposium is focusing on vocational teacher preparation, then it follows that the same conclusion must be drawn with regard to the preparation of vocational teachers.

What is proposed is a collaborative effort among the major actors in the shaping of public school vocational education at the secondary level: local school systems, colleges of education, and state departments of education. Those actors should establish in each local school system offering vocational education, an organized, supportive induction system for the professional development of vocational teachers at all levels: preservice, beginning, and continuing experienced teachers. In larger school systems, with many vocational programs and teachers, the system would entail the establishment and operation of a professional development center with a fixed office, a PDC coordinator assigned full-time, and necessary support staff.

Collaborative Centers

Professional Development Centers (PDCs) for vocational teachers should be established in selected local school systems based partially on the size, diversity, and quality of the vocational offerings, but also considering geographic, travel, and budgetary constraints. The PDC should be operated from an actual facility in a school, with office and meeting space along with work space provided by the local school system. In all

probability, PDC's would be in school systems with more than one comprehensive high school or with one or more relatively large vocational centers, because of the number of apprenticeship sites needed.

The PDC should be operated by a coordinator whose salary is paid jointly by the local school system and the cooperating college of education and whose office expenses are paid jointly by local, state, and university funds. The coordinator should hold joint appointment with the school system and the university, with faculty rank in both. That person could be recruited from the local system as an experienced and successful vocational teacher, or could be assigned from the regular college faculty. In states where undergraduate teacher education programs are being eliminated and field-based certification is the norm, it may mean the transfer of teacher education faculty from the University campus to a local school setting.

Regardless, the PDC coordinator would be permanently assigned to the PDC, but would also be expected to attend faculty meetings and participate in other university functions, such as service on faculty committees, as a university employee. As such, the coordinator might be expected to meet the educational qualifications of a regular university faculty member. At the same time, the PDC coordinator would answer primarily to the principal of the local school for most administrative purposes. The sharing of authority between the respective deans and local administrators would have to be carefully arranged in advance.

It is possible that a teacher education program might need to collaborate in multiple PDCs, depending on the number of preservice students needing clinical experiences annually. On the other hand, for smaller teacher education programs, a single PDC would be adequate.

Skills in the clinical supervision of student teachers, reflective self-critique, mentoring, and staff development are not inherited human capabilities. The PDC coordinator would need to receive extensive training in those processes through the teacher education program at the college of education prior to assuming responsibility for serving in that capacity. From time to time, the PDC coordinator and a university-based teacher educator might temporarily exchange locations and responsibilities to maximize the effectiveness of the school/university contact.

In addition, the PDC would provide a "special relationship" between the university teacher education program and the local school system. That relationship would provide more ready access for the university theoretician and researcher to a real-world setting for a reasonable level of research, observation, and experimentation.

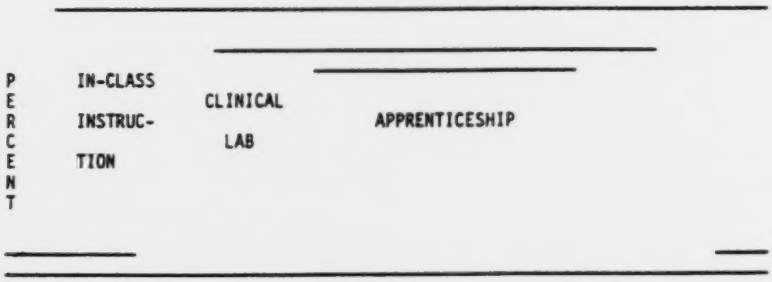
Preservice

One weakness in traditional vocational teacher education programs has been the lack of direct, on-going contact with real students during "methods" instruction. In the PDC, the coordinator would conduct generic teaching skills and techniques instruction during the initial portion of the professional internship period. Because each vocational service area has unique methodologies in their instructional programs, the service-

area-unique instruction would be provided at the university prior to the internship. In addition, any educational foundations, educational psychology, and other teacher education courses would be best handled at the university. The on-site instruction would center on classroom management and instructional delivery skills. The precise mixture of the curriculum is, of course, well beyond the scope of this paper. Nevertheless, the concept of on-site instruction is important.

That would be followed by a period of clinical experience at a high level of intensity. Another weakness in traditional teacher education has been in the lack of genuine clinical training, as described by Berliner (1985,a; 1985,b). Using this concept of a clinical experience, the student teacher does not have responsibility for a class. Initially, the trainees would present micro-teaching lessons to each other in small groups, followed by intensive, reflective self and peer critique under the supervision of the PDC coordinator. Then after a while, he or she begins to present periods of instruction to real students, with peer trainees and the coordinator observing. That experience would be followed by intensive self and peer critique, again under the coordinator's supervision. This phase of the internship might involve each trainee presenting one period of instruction and observing four peer presentations each day, with one to two hours for reflective critique at the end of the day. In practice, this might mean that each teacher trainee would assume responsibility for one class before the "apprenticeship" phase begins.

Figure 1
Typical Organization of Preservice Internship Experiences
In Professional Development Center



Only after the period of isolated, in-class instruction and the intensive clinical experience, would the actual apprenticeship begin. Throughout the apprenticeship period, a low level of in-class instruction and clinical experiences would continue. At the conclusion of the apprenticeship period, another brief set of intensive clinical experiences would be provided, followed by another round of intensive classroom instruction to solidify the experience-based learning.

Thus, the preservice preparation role of the PDC coordinator would be to provide a structured, combination classroom, clinical, and practical student teaching internship for prospective teachers. In this part of his or her responsibilities, the PDC coordinator would assume the role of university field experience supervisor of the student teacher and would place the trainee with an appropriate, service-area specific teacher for the actual experience. But, because the coordinator would be permanently assigned to the PDC, he or she would be able to observe and meet almost daily with preservice teacher trainees for clinical feedback, trainee support, and instruction. In addition, because the PDC coordinator would be in the school most of the time, there would be time to work very closely with the cooperating teachers on clinical supervision techniques.

Figure 2

Typical Responsibilities of the
Professional Development Coordinator

Preservice [a]

* Teaches "Methods" course throughout internship.
* Conducts clinical experience/laboratory program.
* Trains and supervises cooperating teachers.
* Arranges apprentice-cooperating teacher match-up.
* Provides observation and feedback during apprenticeship.
* Evaluates intern
* Manages early field experience program.

Induction [b]

* Provides pedagogical training to untrained novice teachers.
* Organizes support seminars for inductees as long as needed.
* Organizes college credit courses for beginning teachers.
* Organizes non-credit workshops for beginning teachers.
* Organizes mentor program for inductees.
* Trains mentors.
* Observes inductees and provides feedback.

General [c]

* Represents university in local school system.
* Represents local school system in university.
* Coordinates collaborative efforts at mutual improvement.
* Organizes credit courses for local teachers.
* Organizes in-school "internships" for university faculty.

Notes:
a Collaborative Professional Development Center only.
b All school system Professional Development Coordinators.
c All Coordinators, to the extent possible.

The field experience component of the teacher education program should be structured in such a way that some level of classroom instruction in teacher education and some clinical experience would be ongoing. Larger portions of the time at both the beginning and end would be allocated to clinical experience and to classroom instruction in teacher education.

A large block of the time allocated to the internship still would be devoted to a rather traditional, apprenticeship-type student teaching. Yet, because the PDC coordinator would remain on-site, that experience would be much more closely supervised than is now commonly the practice.

Finally, the early field experience program could be managed through the PDC system. Most teacher education students are expected to observe or participate in some sort of pre-clinical experience with real students in real classrooms. The PDC coordinator would arrange and supervise that program.

Induction

A second role of the PDC coordinator would be to organize and direct a professional induction program for beginning vocational teachers. As in the preservice component, the coordinator would be responsible for training experienced and successful teachers to serve as mentors. The coordinator would then facilitate the matching and cooperation of mentors and novices. In addition, the coordinator would conduct a series of on-going professional induction support and assistance seminars for the novice teachers.

Because induction is a continuing process that begins during preservice and extends throughout the career of the teacher, the PDC coordinator would also be responsible for organizing and supervising the continuing professional development efforts of vocational teachers of the school system. In this role, the coordinator would organize both university credit, graduate courses and non-credit workshops for local teachers. It is not expected that the coordinator would actually teach all such courses, but rather, would arrange for regular university faculty or other appropriate resource persons to teach courses in their areas of expertise with scheduling based on the actual needs of the local teachers and schools. As the university representative, the coordinator would be in a unique position to facilitate collaboration between university faculty and local school faculty.

Induction Assistance for Other School Systems

Clearly, not all vocational teachers will be trained and inducted into the profession in large school systems with Professional Development Centers to assist them. Yet, provision should be made for the induction support and assistance of those beginning teachers, too. It should be possible for any local school system that hires beginning vocational teachers to assign, with appropriate release time, an experienced vocational teacher to assist in the organized induction of novices during the critical first years and to coordinate organized professional

development activities on an ongoing basis to teachers throughout their careers.

This experienced teacher would play the same role as the PDC coordinator, except on a smaller scale, and might have the part-time title of Professional Development Coordinator (as opposed to Professional Development Center Coordinator). He or she would be trained in the induction assistance role of the PDC coordinator through the university teacher education program or through an organized PDC. This local lead teacher would then organize and coordinate the local mentoring and induction support program. Although the same degree of close collaboration between these teachers and the teacher education program at the university would be impossible, nevertheless the teacher education program should accept responsibility for working with these other school systems to the extent practicable.

Discussion

Educational reform of major proportions and fundamental nature is upon us. As professional educators, either we will help shape it or its shape will be determined for us. Much of the direction of reform has already been determined, but much is left to be done. This movement will not bypass vocational education.

One arena of reform is in the preservice preparation of teachers. The expected teacher shortage along with dissatisfaction among some very powerful conservative political groups have fostered a spate of "alternative certification" schema, which in some states, including my own Virginia, have taken action to eliminate undergraduate teacher education altogether as a member of the education community.

We have long ignored, or at best paid only minor attention to the induction needs of beginning teachers. With the increase in the relative importance of those alternative teacher entry routes, the already rocky road of the novice teacher will become even more treacherous. The role of teacher education as an agent for the induction of beginning teachers, thus becomes even more important than it was when only teacher education graduates were allowed full entry into the teaching profession.

In light of all this, it is clear that teacher education must become more field-based and less university-campus centered. Given that, we must search for a viable mechanism for school/university collaboration and for an alternative to the traditional teacher education approach of theoretical, university-based teacher education followed by a marginally-supervised apprenticeship period leading to abandonment of the newly "qualified" teacher to sink or swim without substantive assistance.

The Professional Development Center proposed in this paper is one such alternative. It would involve a direct, on-going school and university contact, with at least one person whose employment is jointly financed and supervised sitting at the point of intersection between the two worlds. It would facilitate much greater collaboration between the local school and the university. It would rely on a "special relation-

ship" between the university and a limited number of school systems with PDC's.

This special relationship would be symbiotic for all the actors involved. The university would gain a site for research and experimentation. The local school would gain from the rejuvenating nature of the teacher preparation process and from the experience and knowledge of the university faculty. The preservice teacher would gain a more meaningful, professionally productive theoretical, clinical experience as well as a more closely managed and supervised apprenticeship program. Most importantly, the students of our vocational programs at the secondary level would gain from a more professionally competent and confident body of teachers in the nation's vocational classrooms and laboratories.

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